What is claimed is:

19. A die head for an extruder, comprising:

an outer shell;

an inner cylindrical mandrel;

an annular die gap at a discharge side of the die head;

at least one intake opening for receiving a melted mass;

at least one distribution element for distributing the melted mass to a central ring channel terminating in the die gap;

an inflow channel connecting the at least one intake opening to the at least one distribution element,

wherein at least one of the distribution element and the inflow channel are formed such that the distribution element is set into torsional motion around a longitudinal axis of the mandrel due to a flow of the melted mass, and the flow of melted mass is routed to the central ring channel.

20. The die head according to claim 19, wherein at least one of the distribution element and the inflow channel are formed such that a tangential flow of the melted mass occurs on a peripheral surface of the distribution element.

21. The die head according to claim 19, wherein the distribution element includes a plurality of lamellae interspersed with orifices such that an action of force occurs on the distribution element due to the flow of the melted mass.

22. The die head according to claim 21, wherein the orifices are oriented such that an imaginary extension of a direction of the flow of melted mass at an exit of the orifice runs at a distance to a centerline of the mandrel.

23. The die head according to claim 21, wherein the orifices are oriented such that the flow of melted mass is re-routed around an obtuse angle at an entry of the orifices so that drag and thrusting moments, which move in a same rotational direction, add up to a total torque setting the distribution element in

motion.

24. The die head according to claim 20, wherein at the peripheral surface of the distribution element where the tangential flow occurs, the distribution element has a relatively large effective surface for transmitting a force of the tangentially flow of melted mass.

25. The die head according to claim 19, wherein a height of the inflow channel increases in a flow direction of the melted mass.

26. The die head according to claim 21, wherein the lamellae are pointed or rounded in a flow direction of the melted mass.

27. The die head according to claim 19, wherein one end of a first inflow channel is arranged close to a succeeding inflow channel.

28. The die head according to claim 19, wherein the distribution element is beveled and/or rounded at an inner ring surface thereof.

29. The die head according to claim 21, wherein the lamellae and/or the orifices on opposing face sides of the distribution element are respectively arranged in a staggered array.

30. The die head according to claim 19, wherein the shell includes a plurality of shell segments, each having a dedicated distribution element, and

wherein the shell segments are stacked on top of each other around the distribution elements, and each shell segment has at least one dedicated inflow channel.

31. The die head according to claim 19, wherein the distribution element is arranged in an annular hollow space within the outer shell.

32. The die head according to claim 19, wherein the distribution element is a circular ring element.

33. The die head according to claim 19, wherein the distribution element is arranged in a torpedo-shaped or conical displacement body, whereby the melted mass collides with a tip of the displacement body, and the flow of melted mass is circularly distributed.

34. The die head according to claim 20, wherein the tangential flow occurs at an outer peripheral surface of the distribution element.

35. The die head according to claim 20, wherein the tangential flow occurs at an inner peripheral surface of the distribution element.

36. The die head according to claim 19, wherein the distribution element includes a plurality of lamellae interspersed with orifices arranged such that an action of force occurs at an exit of the orifices due to a material expansion of the melted mass.